

ABSTRACT OF THE DISCLOSURE

A first motion vector is estimated by using a first frame and a second frame that follows the first frame. A support frame is generated from at least either the first or the second frame by using the first motion vector. The support frame is divided into a plurality of small blocks. Motion vector candidates are estimated by using the first and second frames, in relation to each of the small blocks. A small block on the first frame, a small block on the second frame and the small blocks on the support frame are examined. The small block on the first frame and the small block on the second frame correspond to each of the motion vector candidates. A second motion vector is selected from the motion vector candidates, and points the small block on the first frame and the small block on the second frame which have the highest correlation with each of the small blocks on the support frame. An interpolated frame is generated from at least either the first or the second frame by using the second motion vector.